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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/629,907	07/31/2000	Edward B. Caruhers	690-009315-US (PAR)	5062

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EXAMINER

NGUYEN, MADELEINE ANH VINH

ART UNIT PAPER NUMBER

2626

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/629,907	<b>Applicant(s)</b> CARUHERS, EDWARD B.	
	<b>Examiner</b> Madeleine AV Nguyen	<b>Art Unit</b> 2626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

### **DETAILED ACTION**

This communication is responsive to amendment filed on 29 June 2004.

Applicant cancels claims 1-15, 19-23, amends claims 16-18.

#### ***Response to Applicant's Remarks***

Applicant remarks that there is no disclosure in Sugita related to determining optical characteristics of an image recording matter, only inputting an optical characteristic value. The same with determining a target transmission spectrum of a printable ink layer. Sugita only discloses that the input value is the spectrum reflection intensity as one expression of color information.

It is noted in Fig.1, Sugita teaches target optical characteristic value input means 503 which inputs optical characteristic values of an image recording matter that is actually desired (S2). Sugita further teaches optical characteristic value comparison judgment means 504 which compares the target optical characteristic value inputted by the target optical characteristic value input means 503 with the optical characteristic value calculated by the recording matter optical phenomenon calculation means 502. Thus the target optical characteristic value input means 503 should determine the optical characteristic values in order for the optical characteristic value comparison judgment means 504 to get the input optical characteristic values to compare with the calculated optical characteristic value. It would have been obvious to one skilled in the art at the time the invention was made to consider the target optical characteristic value input means 503 determine the optical characteristics of the image recording matter since from Fig.2, after the

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steps of inputting characteristic value (S1), inputting target optical characteristic value S2 and calculating recording matter optical phenomenon S3, the judgment means 504 determines, in step S4, the difference between the input characteristic value S1 with the calculated recording matter optical phenomenon S3. Thus, without determining the optical characteristics of the image recording matter, the judgment means 504 cannot do the comparison or determine the difference.

In addition, although Sugita does not specifically teach that the optical characteristics of a desired color including a target transmission spectrum of a printable ink layer of the desired color, Sugita teaches that the characteristic values includes a spectrum transmittance of the material to be recorded (col. 8, lines 45-55; col. 9, lines 45-55) and the characteristic values can be characteristics of the ink (col. 3, lines 44-50). It would have been obvious to one skilled in the art at the time the invention was made to consider the spectrum transmittance of the material to be recorded is the target transmission spectrum as claimed in claim 16.

The rejection of claims 16-18 is modified due to the amendment of claims 16-18.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugita (US Patent No. 5,915,076).

Concerning claim 16, Sugita teaches a method for determining optical characteristics of a substrate to be printed on and adjusting color components of a desired color to compensate for the optical characteristics (Fig.1), the method comprising the steps of inputting optical characteristics of a desired color (503), determining optical characteristics of the substrate to be printed on (501), and comparing the optical characteristics of the desired color and the optical characteristics of the substrate to be printed on (504) and adjusting the color components of the desired color to compensate for the optical characteristics of the substrate to be printed on (507), (Abstract; col. 3, lines 18-65; col. 6, lines 12-63).

Sugita discloses the step of inputting the optical characteristics instead of determining the optical characteristics. However, it is noted in Fig.1, Sugita teaches target optical characteristic value input means 503 which inputs optical characteristic values of an image recording matter that is actually desired (S2). Sugita further teaches optical characteristic value comparison judgment means 504 which compares the target optical characteristic value inputted by the target optical characteristic value input means 503 with the optical characteristic value calculated by the recording matter optical phenomenon calculation means 502. Thus the target optical characteristic value input means 503 should determine the optical characteristic values in order for the optical characteristic value comparison judgment means 504 to get the input optical characteristic values to compare with the calculated optical characteristic value. It would have been obvious to one skilled in the art at the time the invention was made to consider the target optical characteristic value input means 503 determine the optical characteristics of the image recording matter since from Fig.2, after the steps of inputting characteristic value (S1), inputting target optical characteristic value S2 and calculating recording matter optical phenomenon S3,

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the judgment means 504 determines, in step S4, the difference between the input characteristic value S1 with the calculated recording matter optical phenomenon S3. Thus, without determining the optical characteristics of the image recording matter, the judgment means 504 cannot do the comparison or determine the difference.

In addition, although Sugita does not directly teach that the optical characteristics of a desired color including a target transmission spectrum of a printable ink layer of the desired color, Sugita teaches that the characteristic values includes a spectrum transmittance of the material to be recorded (col. 8, lines 45-55; col. 9, lines 45-55) and the characteristic values can be characteristics of the ink (col. 3, lines 44-50). It would have been obvious to one skilled in the art at the time the invention was made to consider the spectrum transmittance of the material to be recorded is the target transmission spectrum as claimed in claim 16.

Concerning claim 17, Sugita further teaches the step of determining the optical characteristics for the desired color further comprises the step of determining the reflection spectrum of the desired color (col. 6, lines 12-16).

Concerning claim 18, Sugita further teaches the step of determining the reflection spectrum of the substrate to be printed on and determining the surface reflection of the substrate to be printed on (col. 3, lines 18-35, lines 61-63).

### ***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 703 305-4860. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Madeleine AV Nguyen

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*Anh W. Nguyen*

Primary Examiner  
Art Unit 2626

October 29, 2004.